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PUBLIC REGULATION OF STREET RAILWAY TRANSPORTATION

BY EMORY R. JOHNSON,

Professor of Transportation and Commerce, University of Pennsylvania,
Philadelphia.

The General Problem and Methods.—Street railway transportation being a monopoly service, its regulation involves the public control of a monopoly. The fact has for some time been generally accepted that no effective regulation of street railway fares or service can be accomplished either by chartering many rival companies within the same municipal area or by enacting stringent laws against the consolidation of the several lines into a single system. Indeed, the service can be much better performed, and at a lower cost, by the large company than by numerous small ones. Consolidation makes possible a more systematic extension of the tracks, and an earlier adoption of technical improvements; but the unification of the control of the service, although it results in a more economical and efficient service, so strengthens the power of monopoly possessed by the corporations performing the service that effective public regulation is demanded.

Public control can be accomplished either by public ownership, or by the regulation of the corporations entrusted with the performance of the service. Both methods have been adopted, and each has proven successful. The determination of which is the better plan for a particular community to adopt is mainly a question of expediency, whose solution depends on the administrative ability of the local government, and upon the traditional attitude of the people toward the government. As with the question of state ownership of railroads, so with the problem of public ownership of street railways, the same solution may not be wise for all countries or for all periods of time.

The American System of Regulation.—In the United States the street railways are owned and operated by corporations chartered by the states from which the companies receive charters

imposing such conditions upon the companies as the states may deem wise at the time the grant is made. After receiving the charter from the state the corporation must secure from the city in which the lines are to be located a franchise giving permission to construct the proposed railway, and the city has the right to stipulate the conditions under which the corporation may use the streets for laying tracks and operating its cars.

American states and cities place fewer restrictions than European countries do upon the powers of street railway companies. At the beginning of street railway construction, the practice of the states was to grant franchises in perpetuity; and such, indeed, is the policy of many states at the present time, but there are some states which now restrict the duration of the franchises to a limited period of twenty to fifty years.

The power to regulate fares and to make stipulations as to the frequency of the service, the paving and repair of the streets occupied, the removal of snow, and to supervise other details of management is possessed by the cities and towns, and recently the tendency of the cities has been to exercise their power to regulate the street railway service with more detail than was formerly customary.

With the rapid growth of cities and of suburban and rural population, and with the use of electric traction, the profits of the street railway business have increased so greatly as to enable the corporations performing the service to pay the public more for the privileges received from the state and city. Moreover, with the development of great cities, with the more vital dependence of the public upon street railway transportation, and with the consolidation of the street railway lines in our large cities, and in the more populous country districts, so that single corporations frequently control hundreds of miles of tracks, the necessity for careful government regulation of street and electric railways becomes increasingly necessary. The question is not whether there should be public regulation of the street railways, but how the public should exercise its control.

Street Railway Regulation in Massachusetts.—The methods and tendencies of public regulation of street railways in the United States may be illustrated by referring to Massachusetts, New York City and Chicago. In Massachusetts the law provides that the street railway companies chartered by the state shall secure the

streets for the location of their lines "with such restrictions as in the judgment of the selectmen or the aldermen the public interests may require." The terms and conditions under which street railways may be built are thus under the complete control of the local government boards. The state in the past has usually granted the franchises in perpetuity, but the city and town governments may at any time revoke the right and concessions that have been allowed, if the companies give adequate reason for such revocation by failing to observe their obligations to the public. Although this power to revoke a franchise has not been exercised frequently, the possession of the power has doubtless enabled the towns to secure better terms when negotiating with street railway companies.

The State Board of Railroad Commissioners of Massachusetts has supervision over both railroads and street railways. The commission's approval of the location of a proposed street railway must be secured before the line may be constructed. The commission regulates the amount of stocks and bonds the company may issue, and its consent must be secured to the terms of a lease, sale or consolidation. It also has supervision over the fares and the service of street railways, with power to make investigations and to recommend such regulative legislation as may be deemed necessary. The over-capitalization characteristic of street railway companies in many states has been prevented in Massachusetts.

The careful foresight exercised by Massachusetts in the regulation of street railways is exemplified in the policy of public control adopted in the construction and management of the Boston subways. The city of Boston, acting through the Rapid Transit Commission, has constructed the two subways now in operation, and is building a third tunnel. Before the first tunnel was completed it was leased to the Boston Elevated Railway Company for twenty years from the completion of the line at an annual rental amounting to four and seven-eighths per cent of the cost of construction. This rental will enable the city of Boston to meet the interest on the cost of the subway and to pay off the debt in thirty-seven years. The second—the East Boston tunnel—was opened at the close of 1904, and is leased to the Boston Elevated Railway Company until 1922 for an annual rental equaling four and one-half per cent of the cost. The public has control over the fares on all street railways lines, including the subways and elevated roads.

Public Regulation in New York.—In accordance with general practice in the United States, the street railway companies in New York must be incorporated under general law. The charters are subject to repeal and amendment at any time. The companies thus incorporated must secure the consent of the cities in which their lines are to be located, and also of the owners of one-half of the value of the abutting property (unless it should prove to be impossible to secure the consent of the property owners, in which case the court may appoint a commission to appraise the damages that may result to private property) before construction can be commenced. Local authorities have the right to make as a condition of the grant of a franchise the annual payment of an amount not exceeding three per cent of the gross earnings. The fare for a continuous ride is limited to five cents, and the legislature has definitely reserved the right to regulate the fare at any time.

The regulation of street railway transportation in New York City has from time to time been dealt with by the legislature. Since 1884 cities of 1,200,000 population in New York State have been authorized to require of a street railway company taking out a charter five per cent per annum of its gross receipts. Under the charter of Greater New York in 1897, that city is prohibited from granting a street railway franchise for a longer period than twenty-five years (with privilege of renewal for a second period of twenty-five years), and the city is required to invite bids for the franchise and to grant the franchise to the responsible company offering to give the city the largest share of the gross receipts from traffic. It was, however, found necessary for the state to supplement this provision of the charter by a special act allowing New York City to grant a franchise for fifty years to the company constructing and operating the subway recently completed. But it is not probable that it will be necessary to make exceptions in the case of such subways as may be constructed in the future.

The experience of New York City in dealing with the street railway companies on the principle of granting franchises for a limited period and selling them to the highest responsible bidder has been satisfactory, and the city is in a position to derive much more revenue from its street railway companies than it could secure under the system that formerly prevailed. Whether the plan of disposing of street railway franchises at auction will prove highly

successful is, however, doubtful, because of the difficulty of securing competitive bids for the privilege of constructing street railway lines in a city where one company controls the entire surface and elevated system of lines. Under these conditions, when the franchise is put up for auction, the city is practically obliged to deal with one corporation, and is forced to make as good terms as possible with a single company. If the public authorities are intelligent regarding the value of the franchise to be disposed of, and are zealous in protecting the public interests, it is possible for the city under the present plan, even without competition, to secure a good price for the franchise; but in this case, as in all questions of municipal government, success depends upon the intelligence and honesty of public officials.

The City of New York has secured an excellent subway under conditions relatively favorable to the public. As time goes on experience will show that the terms granted by the city to the Interborough Rapid Transit Company were unnecessarily liberal, but it is probable the terms were as good as could be obtained at the time they were decided upon. The act of 1891 for the construction of the subway stipulated that the work should be carried out with private capital, but nothing was accomplished under this act, and in 1894 the city decided upon municipal construction and private operation of the subway. After this plan had been favorably voted upon by the people of the City of New York, it was still uncertain whether private capital could be found to construct the subway with the use of public funds, and to assume the obligations imposed by law for the repayment of the money advanced by the city. Finally a contractor was found willing to assume this obligation on the condition of a fifty years' lease. The traffic of the subway has been larger than was anticipated, and the financial success of the enterprise is fully assured. Indeed, this first subway promises to be so profitable that capitalists are now willing to build parallel subways. New York will, doubtless, have numerous subways constructed during the next score of years, and it is not impossible that the city may be able ultimately to dispense with its north and south surface lines and thereby reserve the streets for vehicular traffic.

Illinois and Chicago.—The problem of street railway regulation has been under public consideration in Illinois and Chicago

almost continuously during the past ten years. The numerous franchises held by the two corporations controlling the nine hundred miles of street railways in that large city were limited to a period of twenty years, the end of which period in most instances fell between 1903 and 1907. Between 1897 and 1900 the street railway corporations made an unsuccessful attempt to secure the extension of their franchises for a period of fifty years. This aroused a vigorous public opposition, which in 1903 led to the passage of a state law authorizing the cities of Illinois to purchase and operate street railways. This law applies generally to all cities, but was passed with special reference to the City of Chicago.

Most of the early street railways in Chicago were constructed under franchises having a duration of twenty-five years. Under the law passed in 1865 the street railway companies then existing were granted an extension of their charters for ninety-nine years. This law was very unpopular and led to a great controversy, the result of which was a compromise in 1874 by which all street railway franchises were to be limited in the future to a period of twenty years. In 1883 all existing charters were extended to twenty years from date.

Recent events in Chicago are of such interest that they merit statement in some detail. In 1897 the street railway companies of Chicago, foreseeing that most of their charters would probably expire between 1903 and 1907, induced the legislature of the State of Illinois to pass the so-called Allen law, which extended all street railway charters fifty years and authorized the charging of a five cent fare during that period. This act of the state legislature aroused strong and general opposition on the part of the people of Chicago, and the City Councils, in 1898, refused to grant the franchises required by the street railway companies in order to avail themselves of the privileges they had secured by the Allen law. The universal protest against the Allen law led to its repeal by the state legislature in 1899. This was followed by a strong agitation in Chicago to bring about municipal ownership and operation of the street railways within the city. The result of this movement was the passage, in May, 1903, of the Mueller law, authorizing "cities to acquire, construct, own, operate and lease street railways and to provide the means therefor."

The City Councils decided to give the people of the City of

Chicago, by means of a referendum, a right to decide whether the city should avail itself of the powers granted by the Mueller law, and in 1904 the voters of the city authorized the city government "to proceed without delay to acquire the ownership of the street railways." The City Councils were slow in acting in accordance with the referendum, and consequently the matter came up for popular vote upon a second referendum in 1905, at which time the people decided against granting franchises to street railway companies permitting them to continue the operation of the street railways. These referendum votes practically decided that the City of Chicago should proceed with the acquisition of the street railway lines within the city's limits.

Before the city could accomplish the municipalization of the street railways, three problems had to be settled:

(1) The first of these was as to the actual date of the expiration of the charters held by the street railways in the city. As was stated above, the legislature in 1865 had granted a ninety-nine-year extension to street railway charters; but in 1874 a law had been passed limiting all street railway franchises to twenty-year periods, and in 1883 another law had been enacted extending charters to twenty years from date. The street railway companies claimed that the ninety-nine-year act was valid, and that none of their charters expired before 1958. This matter was passed upon by the state courts and finally decided by the United States Supreme Court on the 16th of March, 1906, which court held that "the ninety-nine-year act, while extending the corporate existence of the three companies to which it applied, did not extend their street privileges."

(2) Another important question that required settlement was the purchase price to be paid the street railway companies by the city, and the terms under which the city should acquire the ownership of the property. After extensive negotiations an agreement was reached at the close of 1906 that the street railway property should be valued at \$50,000,000, the property of the Union Traction system being considered worth \$29,000,000, and that of the City Railway system at \$21,000,000. The power of the city to issue certificates of indebtedness for the purpose of purchasing the street railways in accordance with the authority granted by the Mueller law has been decided in the courts and in favor of the city, viz., the Mueller law has been upheld.

(3) The third large question was whether the city should take over the street railway lines at once and operate them, or whether it should leave them, temporarily at least, in the hands of the present operating companies, to be managed by them in accordance with the terms to be agreed upon between the companies and the city. The officials representing the City of Chicago have decided in favor of leaving the property in the ownership and under the management of the street railway companies, under the provisions of a city ordinance authorizing the city to take over the street railways whenever it may choose to do so at the agreed value of \$50,000,000.

An ordinance to carry out this program is now before the City Councils of Chicago, and the people of the city, by referendum vote, are to decide at the spring election what the City Councils shall do. It is highly probable that the vote will instruct the City Councils to pass the ordinance now pending.

The provisions of this ordinance merit careful consideration by all students of the public regulation of street railways. The ordinance¹ provides for:

The immediate rehabilitation of the said street railway systems and for the right of the City of Chicago or its licensee to purchase the same, on the first day of February and on the first day of August of each and any year, upon giving six months' previous notice, in writing, and upon definite terms fixed in the respective ordinances.

The city and the companies respectively agree that the value of the present tangible and intangible property of the Union Traction system is \$29,000,000, and of the City Railway system, \$21,000,000.

The companies agree that they will proceed at once to rehabilitate and re-equip their entire street railway systems and put the same in first-class conditions, in full compliance with specifications for such work and under the supervision of a Board of Supervising Engineers created under the ordinances.

The city or any other company authorized by it is given the right to purchase the entire property of the two systems, or either of them, upon the payment of the agreed price of the present property of each company, respectively, and the cost of rehabilitation and extensions, including fair allowances for construction, profit and brokerage.

If the street railways are to be so acquired for operation by a private corporation, for its own profit, the purchase price is to be increased twenty per cent.

The companies are limited, during their operation, to an interest return of five per cent upon the agreed value of their property, plus the cost of

¹This summary of the main provisions of the ordinances is quoted from the report submitted to the City Councils of Chicago, January 15, 1907, by the Committee on Local Transportation, Charles Werno, chairman.

rehabilitation and extensions. The fare for one continuous ride within the city is to be five cents.

The net profits from the operation of the street railways are to be divided between the city and the companies in the ratio of fifty-five per cent to the city and forty-five per cent to the companies.

The ordinances provide for a comprehensive system of transfers and through routes, by means of which passengers can ride over all connecting lines within the city limits.

The companies agree, upon demand of the city and at the city's option, to furnish funds to the amount of \$5,000,000 for the construction of a central subway, to be built and owned by the city, the plans for which are to be approved by the Board of Supervising Engineers.

The British System of Street Railway Regulation.—The regulation of street railways in Great Britain is based upon the Tramways Act of 1870. Most of the tramways were constructed by private companies. Under the act of 1870 the (1) tenure of their franchises is limited to twenty-one years, (2) the local authorities have power to pass upon or veto the proposed tramway project, and (3) also have power to buy out the tramway company at the end of the twenty-one-year period by "paying the then value (exclusive of any allowance for past or future profits of the undertaking or any compensation for compulsory sale, or other consideration whatsoever) of the tramway."

Under the act of 1870 the municipalities of Great Britain have had the authority to construct, purchase and manage their tramway systems. Since 1891 the franchises of many street railway companies have reached their term limit, and numerous cities have had the option of renewing these franchises or purchasing the tramways in accordance with the provisions of the act of 1870. The tendency has been for the cities to buy out the tramways and either operate the railways as municipal enterprises or to lease them to private companies for operation under municipal supervision. Municipal operation as well as ownership seems to be the favored policy, and most of the largest cities of the United Kingdom now manage their tramways. Manchester, Liverpool, Glasgow, Birmingham and London (the "County of London") are among the large cities which own and operate their tramways.

In 1893 there were only twenty-eight street railway lines aggregating 170 miles, owned by municipalities in Great Britain. In 1901 there were 99 enterprises, aggregating 689 miles. During

this period of eight years there was no increase in the number of private companies, and the growth in mileage owned by private companies was from 501 to 616 miles. In 1904 there were 162 street railways in Great Britain owned by cities, with 1,148 miles of tramways. The number of private undertakings was 150, with a total line mileage of 692.

The tendency of the cities of Great Britain to municipalize street railway transportation may be illustrated by referring to the recent experience of London. In accordance with the provisions of the act of 1870, supplemented by the London County Tramways Act of 1896, the County of London has acquired nearly all of the surface tramways within the county limits.

On account of the narrow streets and density of traffic the mileage of surface railways or tramways within Greater London is relatively small. In 1903 the route or line mileage within the County of London, which constitutes the inner portion of the area of Greater London, was 115½ miles. This does not include the numerous subways and tubes now in operation. Of the tramway line mileage, 99¼ miles, or all but 16¼, the London County Council has either purchased or announced its intention of purchasing. In 1903 most of the tramways within the county north of the Thames were being operated by a company to which the line had been leased by the London County Council. Since then the operation of this line has been taken over by the Council, and at the present time practically all of the surface tramways within the area of the County of London are operated by the County Council. Within the Metropolitan, or Greater London district, and outside of the County of London, there are numerous electric tramways operated by chartered companies; but even they are coming under the ownership and operation of public authority.

Rapid transit in London is supplied mainly by tubes or subways. At the present time the old Metropolitan system, which is part subway and part open line, comprises 35½ miles of route and 71 miles of single track. The six electric tubes now in operation have a route length of 30¾ miles. Thus the Metropolitan system and the tubes give London 66¼ miles of underground street railways. The companies operating these underground lines derive their charters from Parliament by private bills, and thus do not come directly under the control of the London County Council. They

are under the control of public authority and will, doubtless, in time, be subject to regulation by the municipal government of London as well as by the Royal Government.

The German System.—Although Germany is a confederation of several states, each of which has authority to determine the conditions under which street railway companies may be incorporated, the imperial code of 1900 establishes practical uniformity among the several states as regards their system of public control of urban transportation. The German system may be summarized by stating that it comprises (1) a detailed regulation of the service through the charter provisions required by the laws of the states and the imperial code, (2) the local governmental authorities have the power to grant or withhold franchises and also have the power to construct, purchase or operate the street railways, (3) both private and municipal systems of street railway management prevail in Germany. Some cities have private street railway companies, other cities own and operate the lines within their limits. Some of the cities owning lines lease them to private companies; but the usual practice is for the city to operate the lines in its possession. In 1902 eighteen of the one hundred and thirty-three German cities owned the street car systems within their limits. In this list are such large cities as Dresden, Munich, Mayence, Cologne, Frankfurt, and Halle.

In the metropolis of the country, Berlin, the agitation for the municipalization of street railway transportation has thus far been unsuccessful, and the franchise of the most important company operating surface lines in the city has been extended until 1949, the city reserving the right to purchase before the expiration of the franchise. The elevated road extending through and around the city is a part of the Prussian state railway system. A new and excellent underground and elevated road has been put into operation by the great firm of Siemens & Halske, which company pays the cities of Berlin and Charlottenburg a liberal percentage of its annual income. The annual percentage increases with the growth of the company's annual receipts.

As in Great Britain, so in Germany, the tendency is distinctly towards the municipalization of the street railway service. This tendency is in accordance with the development of state ownership and management of transportation agencies in Germany. In Great

Britain, however, there is no apparent demand for the nationalization of the steam railroads, and the tendency towards municipalization of street railways represents a departure from the theories which have in the past prevailed regarding the best relations of the government to the transportation service.

Comparison of Municipal and Private Ownership.—In the United States, street railways, with the exception of certain subways, are owned by private companies. In Europe, although the majority of the street railway enterprises are still owned by corporations, the tendency is towards the purchase and operation of the tramways by city governments. The success that has attended municipal ownership and operation has been such as to lead some persons to conclude that all cities, both European and American, might advantageously adopt the policy of municipalization of the street railway service.

In Great Britain the street railway service during the decade following 1890 was generally unsatisfactory. This was in part due to the fact that the Tramways Act of 1870, by which franchises were limited to periods of twenty-one years, foreshadowed a policy of municipalization of the private lines. When the time came for changing from horse to electric traction, the private companies generally neglected the service, with results that are well stated in the following quotation taken from the minutes of the Plymouth, England, Town Council:

The main objects of the corporation in purchasing the tramways were to get rid of the company management, which had failed to give the public an effective tramway service and which had exhibited so considerable disregard of public inconvenience and remonstrance, and in the second place the direction and control of the policy of the tramway extension in the hands of the council as representing the general body of ratepayers, for the general benefit of the borough, instead of leaving the tramway system to be developed and extended for the purpose of securing profits to shareholders without regard to local necessities.

The main advantages of municipal ownership and operation are:

(1) The possibility of low fares and of adjusting fares with reference to the most advantageous distribution of population.

(2) The ability of the city to regulate the wages and hours of labor of the street railway employees.

(3) To secure to the city the increasing profits resulting from the growth of population and traffic.

Assuming that a municipal government is honest and is able to manage the street railway service efficiently, the advantages of municipalization are manifest. There are, however, certain dangers connected with municipal ownership and operation even under the favorable conditions prevailing in the cities of Western Europe:

1. There is the liability that municipal debts may be greatly increased and that the cities may be so desirous of reducing street railway fares as to neglect to provide for the payment of the railway debt within the proper period.

2. Writers opposed to municipalization claim that the city is more liable than private corporations are to allow the track and equipment to depreciate, and to neglect the construction of new tracks extending the lines into unoccupied suburban regions.

3. It is also claimed that the municipalization of street railways will restrict the construction of interurban electric lines, for the reason that each city will be disposed to confine its lines to the region within its own limits, and that, having done so, private companies will not find it profitable to construct lines connecting the cities.

European cities have so recently adopted the policy of municipalization of street railways that it is too early to determine what their policy will be as to the payment of the debts incurred in buying out the corporations or in constructing new lines, or what their policy will be regarding the maintenance of their track and equipment, and whether they will extend their systems with adequate rapidity. In general, it may be said that the British and Continental cities have thus far dealt satisfactorily with these questions. Whether municipalization will hinder the construction of interurban lines remains to be seen, but it seems probable that this may prove to be a somewhat important consequence of municipalization.

The success that is attending the purchase and operation of street railways by foreign cities argues but little for such a policy for American cities. The condition of municipal government in the United States is such as to discourage the ownership and operation of street railways by public authorities at the present time. For the United States the policy for some time to come should be one

of public regulation rather than one of public ownership and operation.

The Street Railway "Problem" in the United States.—The adjustment of the relations of the public authority to the street railway transportation service is a problem comprising the regulation of the provisions of the charter and franchise granted to the company, the regulation of the capitalization and financial methods of the corporation performing the service, the public supervision of the service, the control of the fares, and the adoption and enforcement of wise methods of taxation. This is indeed a complicated problem, the solution of which has been as yet but partly accomplished. The regulation of the franchises, services and charges of street railways needs to be more detailed than is required in the case of steam railroads, because the street railway service is more completely monopolistic than is the business of railroad transportation.

That these facts necessitate a detailed regulation of the street railway service is being increasingly recognized in the United States is shown by the general tendencies discernible in the legislation of the states:

1. There is a tendency to limit the period for which the franchises are granted, and to increase the obligations to be met by the companies in order for them to maintain the validity of the franchises they receive from the public. The states are giving the cities power to exact more than they formerly could of the street railway companies, and the cities are showing an increasing disposition to avail themselves of the powers they have received from the states.

2. The state and municipal control over fares is being more frequently exercised. In several states and in numerous cities efforts are being made to establish an effective public regulation of street railway charges. These efforts indicate more clearly than any other movement could the tendency towards a greater exercise of public authority.

3. There is a growing disposition to tax the franchises and earnings of street railway companies as well as their physical property. The fact is coming to be recognized that taxation levied only on the physical property of street railway companies reaches but a small part of the value possessed by the companies, and that an adequate system of taxation necessitates the taxation either of the franchises or of the earnings of the companies. Moreover, the

legal limitations ordinarily placed upon property taxation—that all kinds of property shall be taxed equally—presents another reason for adopting some other basis than physical property for the assessment of street railway companies. In some states the value of the street railway franchise is reached for purposes of taxation by treating the franchises as property and thus avoiding the restrictions of the laws regarding taxation of all physical property. The most convenient and, on the whole, the most practicable method of taxing street railway companies is that of requiring them to turn over to the city annually a liberal percentage of their gross receipts. While the gross receipts tax is not theoretically the most ideal one, the objections to it are not important in the case of the street railway business, and its advantages outweigh the theoretical objections.

The present thought regarding the proper solution of the street railway problem in the United States may be approximately summarized as follows:

(1) A five-cent fare, with six tickets for a quarter, and a general system of transfers; (2) that the service shall be performed by chartered companies, but that each company shall pay to the city a percentage of its gross receipts and be required to pave and sprinkle the parts of the streets occupied by its tracks; (3) that capitalization of the company shall be regulated by public authority and over-capitalization prohibited; (4) that franchises shall be limited to twenty or thirty years, and that the city should retain the right to purchase at the expiration of this period the property of the company at a fair valuation; (5) that a commission or some other public authority shall pass upon the public necessity for a proposed street railway, and regulate the service in the public interest; (6) that the annual reports made to the state and city shall give full information regarding both the service and finances of the company.

The general problem of the public regulation of street railways has been simplified both by the consolidations that have brought the street railways systems in each of most of our large cities under a single control, and by the recognition on the part of the public of the fact that the street railway service is a monopoly and must be regulated as such. The fact that the street railway service is a monopoly not only necessitates public regulation, but makes possible more efficient public control. The truth of this is

well illustrated in Boston, where all the lines, elevated, surface and subway, are operated by a single company. Over-capitalization has been prevented, the fares are being regulated, and different parts of the street railway systems are co-ordinated so as to secure a good service in a city where the difficulties of providing street railway transportation were exceptional. What Massachusetts and Boston have done other states and cities can, and doubtless will do. Indeed, hopeful progress is being made in several states, and the successful solution of the "street railway problem" in the United States by public regulation rather than by municipalization seems more than probable.

SELECTED REFERENCES.

- "The Relations between Cities and Towns and Street Railway Companies." Report of the special committee of the State of Massachusetts, 1898. (This report contains an excellent discussion of the theory of public control and gives a summary of the laws of several of our states and of leading European countries.)
- "Chicago Street Railways." By Milo Roy Maltbie, 1901.
- "Municipal Affairs," Volume IV, No. 1, 1900, and Volume VI, No. 4, 1902-03. (The papers in Volume VI, No. 4, of "Municipal Affairs" are especially valuable.)
- "The Present Street Railway System in Chicago." By H. A. Millis. *ANNALS*, Volume XX, September, 1902.
- "Street and Electric Railways," 1902. Bureau of the Census. Special Reports. Department of Commerce and Labor, Washington, 1905.
- "Municipal Ownership in Great Britain." By Frederic C. Howe. *Bulletin* of the Bureau of Labor, Department of Commerce and Labor, No. 62, January, 1906.
- "Glasgow's Experience with Municipal Ownership and Operation." By Robert Crawford. *ANNALS*, January, 1906.
- "Municipal Ownership and Operation of Street Railways in Germany." By L. S. Rowe. *Ibid.*
- "Transportation Facilities and Street Railway Traffic in London." By Lynden Macassey. *Ibid.*
- "The Movement for Municipal Ownership in Chicago." By Hugo S. Grosser. *Ibid.*
- "Street Railway Franchises in Massachusetts." By Walter S. Allen. *Ibid.*
- "The Gas, Electric Light, Water, and Street Railway Services in New York City." By Robert Grier Monroe. *Ibid.*
- "Chicago Traction: A Study in Political Evolution." By Willard E. Hotchkiss. *ANNALS*, November, 1906.
- "Report of the Royal Commission on London Traffic, 1905." (The report comprises seven volumes, the first volume containing the report prepared

by the commission, the other six volumes being devoted to minutes of evidence and appendices. These seven volumes constitute a rich mine of information regarding the tramway systems of England, the United States and the Continent of Europe, and deal fully both with the technical questions and with the various systems of public control of street railway transportation.)